

Name _____

Date _____

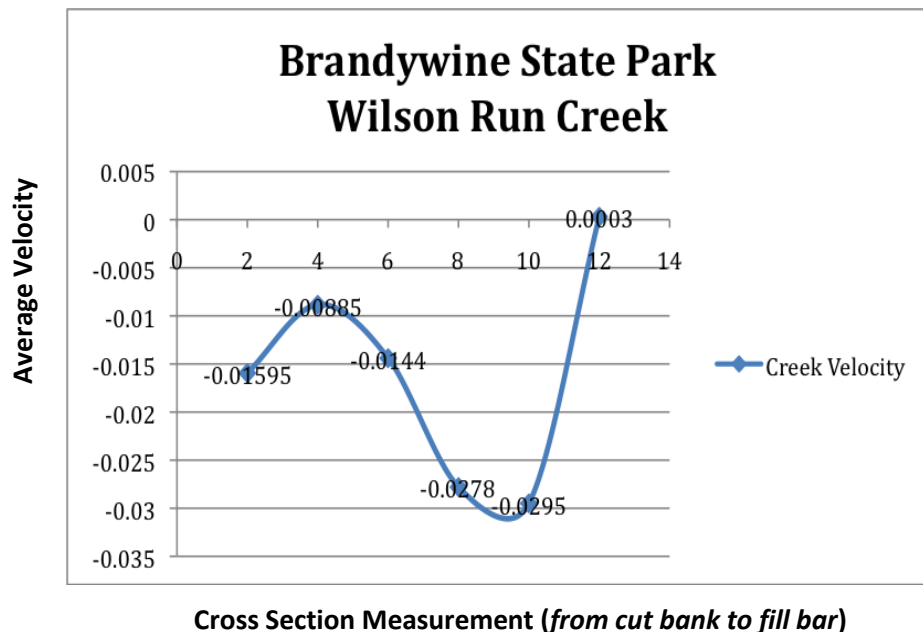
Class _____

Field Study

Two teachers went to Wilson Run creek with a scientific instrument known as a flow meter. They used this instrument to take measurements of the velocity of the creek. They found that water flowed faster on one side of Wilson Creek than it did on the other. They took samples of sediments from each side. They measured the size of the particles and compared them to the Hjulstrom Diagram. This is the data they collected:

**Field Analysis of Data Collected at Brandywine State Park
Wilson Run Creek on Wednesday, July 14, 2010.
*Partners on field trip were Linda Smith and Rosalind Williams.***

Cross Section Measurement	Depth	Converted to cm	Direction		Average Direction	Velocity
1 foot =30.48 cm	(at cross section measurement)	30.48	x (cm)	y (cm)	x and y direction	10 sec. measurement
2	4.75	144.78	-0.048	-0.271	-0.1595	-0.01595
4	9	274.32	0.112	-0.289	-0.0885	-0.00885
6	10.5	320.04	0.1	-0.388	-0.144	-0.0144
8	6.5	198.12	-0.176	-0.38	-0.278	-0.0278
10	8	243.84	-0.107	-0.483	-0.295	-0.0295
12	6.5	198.12	0.007	-0.001	0.003	0.0003



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If the Hjulstrom Diagram is correct, which set of sediments came from the slower side of the stream (known as the point bar) and faster side (known as a cut bank)?
Give reasons for your answers

Which side of the stream would be a better side to build a house on?
Give reasons for your answer.
